Indo – US Natural Gas Conference

Criteria of U.S. Companies in Competitive International Investment Decisions

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elpaso

El Paso Today

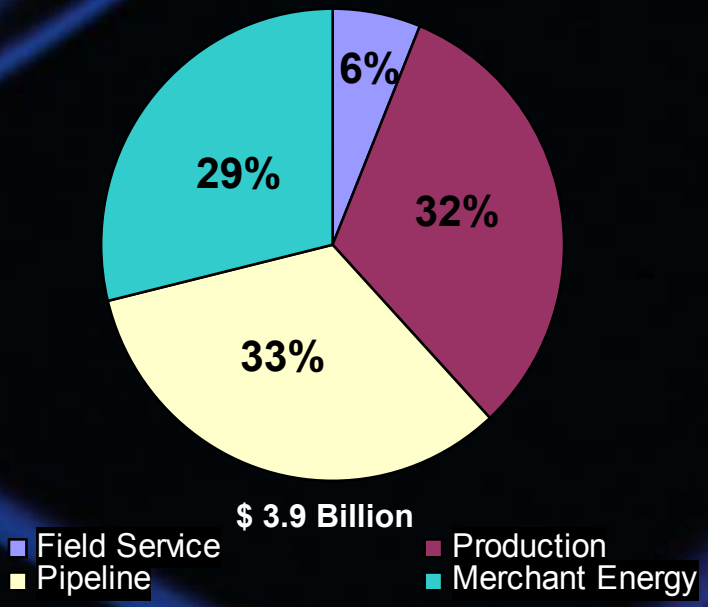
- Market Cap - $25 Billion
- Annual Revenue 2001 – $ 57 Billion (Fortune 15)

- Largest Gas Pipeline company in the world, with 60,000 miles of T-lines
- Third largest producer of natural gas in North America
- Largest importer of LNG into North America

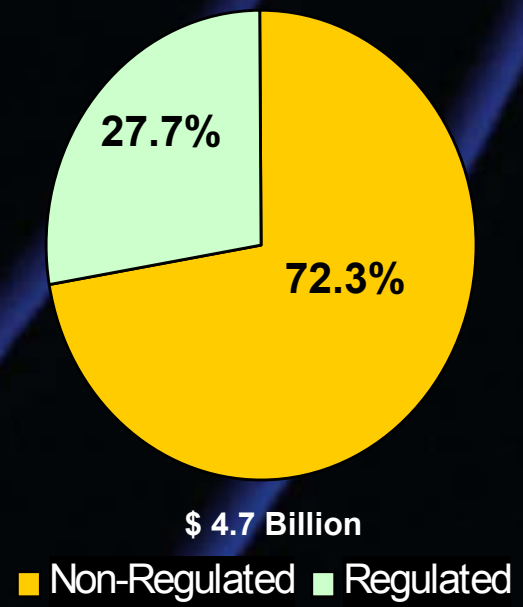
- Over 22,000 MW of power generation

El Paso Today

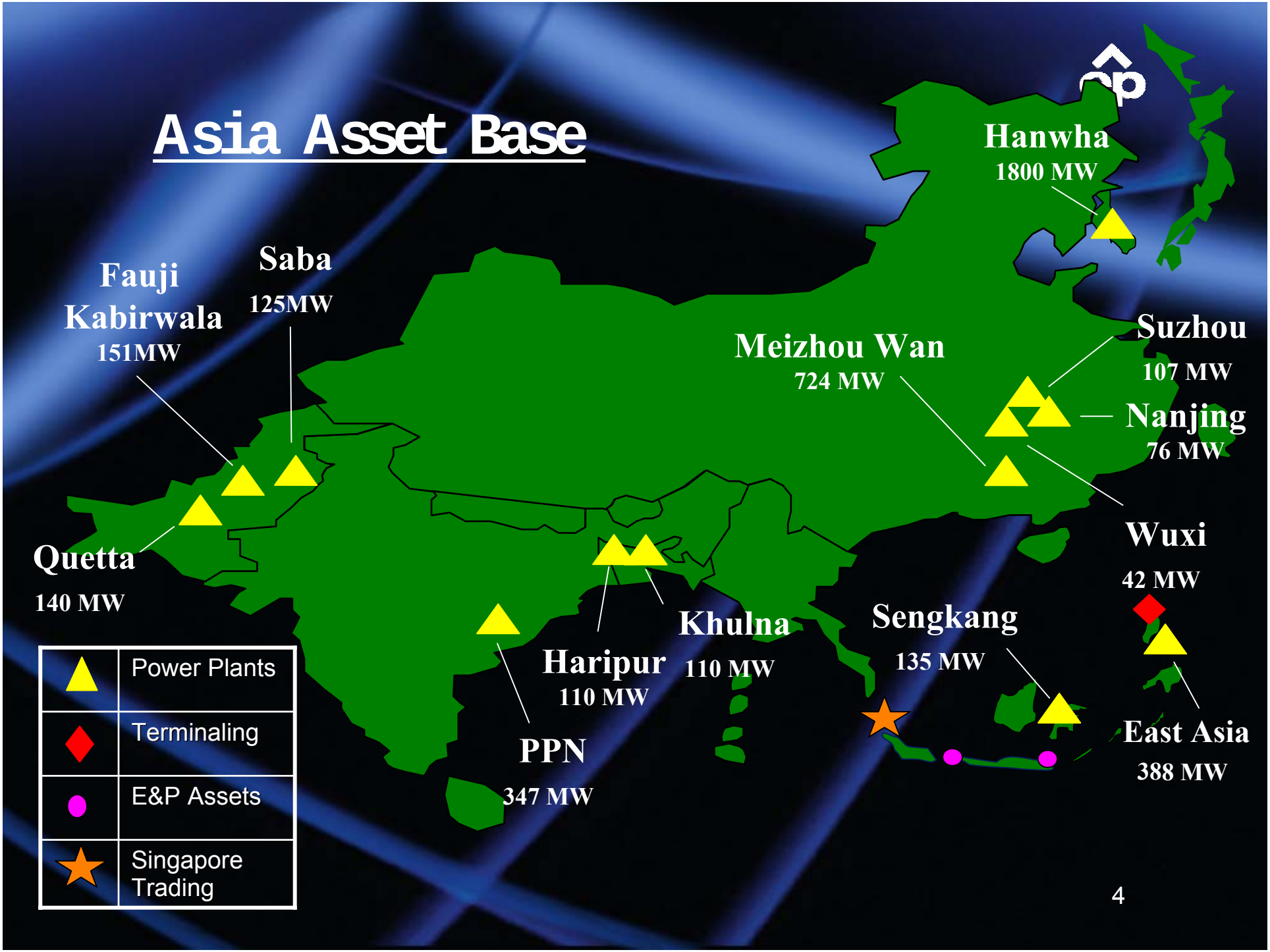
2001 Net Income



2001 Capital Spending



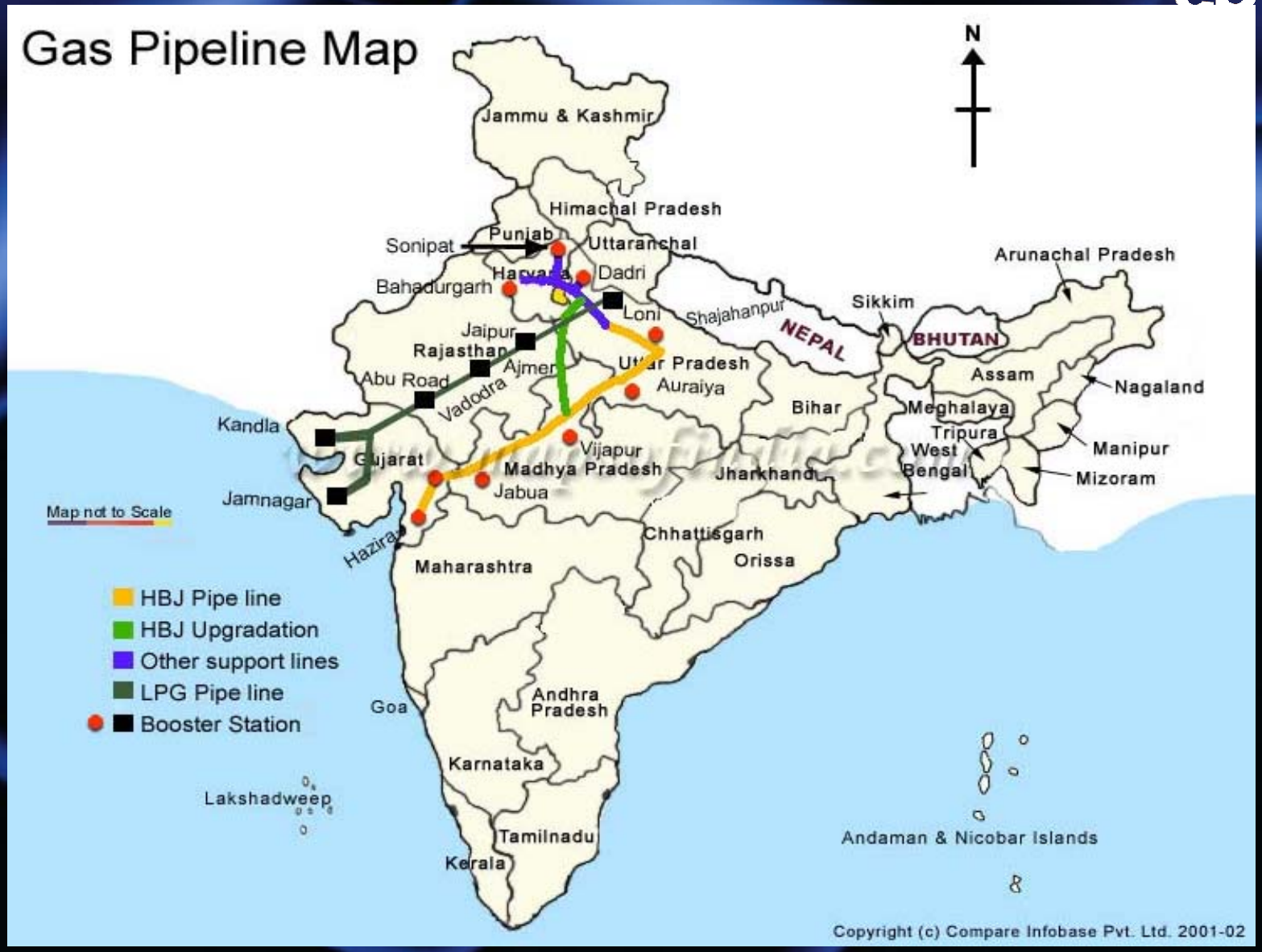
Asia Asset Base



India: Natural Gas Sector

- Energy consumption projected to grow 6-7% annually during the next 12-15 yrs.
- India Hydrocarbon Vision 2025 proposes enhancing share of natural gas to 20% of total energy mix from the existing 8%
- Natural Gas sector:
  - a preferred fuel to replace coal
  - environmentally friendly
  - Power and fertilizer sectors will influence the pace and growth of gas demand

India Gas Pipeline



Natural Gas: Demand

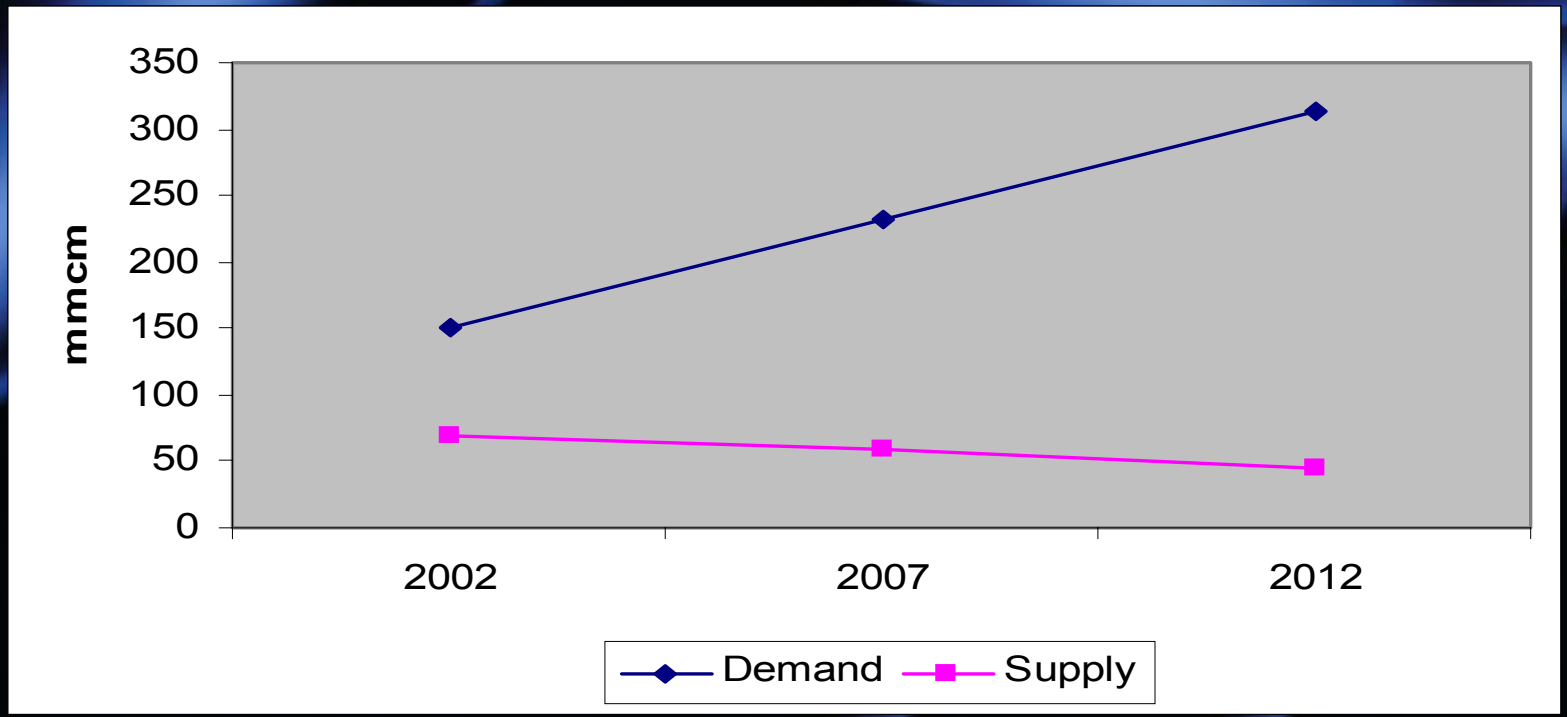
Projected Gas Demand (mmcmd)				
Sector	1999 *	2002	2007	2012
Power **	22	67	119	168
Fertilizer	24	54	66	83
Others	9	30	46	63
Total	55	151	231	313

* Actual Sales

** Base load demand for Power sector at price $3/MMBtu- imputed value approach.

Source: ADB Report 1999 and Natural Gas Hydrocarbon Vision 2025

Natural Gas: Demand/Supply Gap



(mmcmd)	2002	2007	2012
Demand	151	231	313
Supply	70	58	45
Deficit	**81**	**173**	**268**

Source: ADB Report 1999 and Natural Gas Hydrocarbon Vision 2025

Potential solutions to gas deficit

- Internal
  - Invest in exploration
    - High Costs – Risky
    - Prognosticated Reserves of hydrocarbons - 21 billion tons
    - Discovered hydrocarbons - 6 billion tons
    - Natural gas from domestic sources expected to stagnate
  - Expansion of the the HBJ pipeline (projected investment $615 MM)
  - Unconventional sources of gas – e.g. coal bed methane, underground coal gasification, gas hydrates
  - New technologies – fuel cell, deep-water exploration

- External
  - LNG Imports
    - Dahej in Gujarat (5 MMTpa) (investment US$500MM) and Kochi in Kerala (2.5 MMTpa) (investment US$420 MM) by Petronet LNG
    - Dabhol LNG terminal
  - Regional Trade
    - Bangladesh (projected investment $900 MM) and Myanmar important regional players
    - Oman, Iran ($2 billion), Turkmenistan pipeline projects delayed because of technical and geo-political reasons

Investment Gap

- Energy deficits call for large injections of capital in upstream and downstream sectors
- Natural Gas
  - In the next 20-25 years, India needs an investment of US$10 billion for the development of LNG terminals
- Indian Power Ministry projects an investment requirement of US$160 billion in the next 10 years

U.S. companies: Market Trends

- Trends
  - New map: N. America, Europe, Japan
  - Fast paced changes: create and digest premiums
  - Trading platforms, risk management strategies
  - Liquefied natural gas in North America
  - Build businesses rather than discrete investments
  - Multiple businesses from simple investment
  - Expectancy of investment returns: much higher
- Post-Enron
  - Market expectation: total transparency, stricter accounting/auditing, faster reaction by rating agencies
  - Increased focus on cash rather than earnings
  - Massive asset sales to lower leverage
  - Tension: conservatism vs. pace of growth
- Asia
  - Divergence in expectations between investors and clients

Criteria 1: Positive investment climate

- Today's investment map: N. America, Europe, Japan
  - Deregulation: huge investment requirements
  - Private sector has greater choice
  - Pressure to focus on core assets/markets
    - Exit Asia strategy
- Positive investment climate
    - Good governance, security
    - Level playing field
    - Promote investors

Criteria 2: Effective regulatory structure

- Companies need:
  - Non-politicized tariff adjustment process
  - Third-party resolution of “normal” disputes
- Case: most countries
  - Private party pitted against powerful off-taker

Criteria 3: Sanctity of Contracts

- Infrastructure investments are long-term decisions
  - Adherence to contracts
  - Fair interpretation
  - Recourse to fair hearing in case of disputes
- Case: India vs. China
  - Dabhol: respect for Indian legal system
  - Comprehensive tariff reform in China
  - PPN Project, Tamil Nadu

Criteria 4: Cost-based tariffs

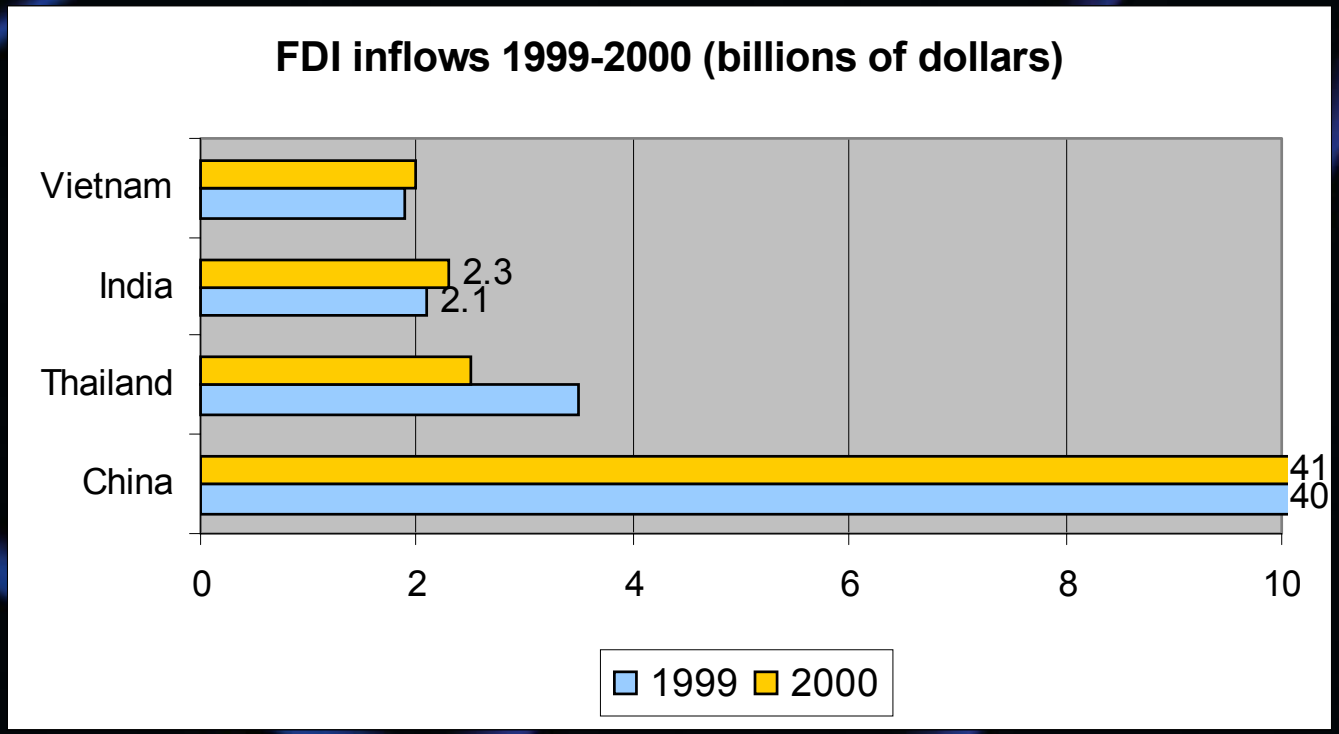
- Tariffs should be transparent, cost-based
  - Sound financials of off-taker
- Case: many Asian countries
  - Tariffs not cost-based or even lower than cost
  - Off-taker subsidized, non-viable
  - Persistent problems with cash-flow

Criteria 5: Project Proforma

- Rate of Return
  - Pre- and post- risk adjustment
- Financing possibilities
  - Non-recourse financing
  - Terms and conditions
- The “right” returns depends upon other preceding criteria

India: FDI Status

- Vastly reduced FDI flows into the energy sector
- Investor sentiments very negative



Source: UNCTAD, FDI/TNC database

India: FDI Status

- To date, India has made a choice in energy investments
  - Energy deficits vs. investments
  - Local investors vs. foreign
  - Cross-subsidies vs. cost-based tariffs
  - Control vs. deregulation
- Foreign investors in Indian energy sector:
  - No first-mover advantage, perhaps disadvantage
  - No more “strategic investments”
  - Choose markets that are open, welcoming, and profitable